

AMENDMENTS TO THE CLAIMS

The following is a complete listing of the pending claims with a status identifier in parentheses, the underlined text indicating insertions and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (CURRENTLY AMENDED) A semiconductor package comprising:

a substrate having a top surface and a bottom surface, the top surface including a plurality of substrate pads;

a semiconductor chip mounted on the substrate, the semiconductor chip having an active surface, a back surface, and a peripheral surface, the active surface including a plurality of chip pads;

a first peripheral sealing portion formed along the peripheral surface of the semiconductor chip; and

at least one a plurality of pattern lead leads providing an electrical connection connections between at least one first chip pad of the plurality of chip pads and at least one substrate pad of the plurality of substrate pads; and, the pattern leads extending along an inclined surface of the peripheral sealing portion

a second peripheral sealing portion formed along the first peripheral sealing portion covering the at least one first chip pad and a portion of the at least one pattern lead without covering at least one second chip pad of the plurality of chip pads.

2. (CURRENTLY AMENDED) A semiconductor package according to claim 1, further comprising:

an encapsulant covering the semiconductor chip, the first peripheral sealing portion, the second peripheral sealing portion, the substrate pads, and the at least one pattern leadleads.

3. (CURRENTLY AMENDED) A semiconductor package according to claim 1, wherein:
the first peripheral sealing portion covers a first peripheral portion of the active surface; and
the second peripheral sealing portion covers a second peripheral portion of the active surface.
4. (CURRENTLY AMENDED) A semiconductor package according to claim-2_1, further comprising:
external connection terminals formed on the substrate, the external connection terminals being electrically connected to the substrate pads.
5. (ORIGINAL) A semiconductor package according to claim 4, wherein:
the external connection terminals are arranged on the bottom surface of the substrate and are selected from a group consisting of solder balls, solder bumps, microsprings and connecting pins.
6. (ORIGINAL) A semiconductor package according to claim 4, wherein:
the external connection terminals are arranged on the top surface of the substrate.
7. (CURRENTLY AMENDED) A semiconductor package according to claim 1, wherein:

an inclined surface of the first peripheral sealing portion forms an angle of between about 30 and 75 degrees relative to the top surface of the substrate; and
an inclined surface of the second peripheral sealing portion forms an angle of between about 30 and 75 degrees relative to the top surface of the substrate.

8. (CURRENTLY AMENDED) A semiconductor package according to claim 1, wherein:

the first peripheral sealing portion and second peripheral sealing portion include includes an insulating composition selected from a group consisting of photo solder resists and plastic resins.

9. (ORIGINAL) A semiconductor package comprising:

a substrate having a top surface and a bottom surface, the top surface including a plurality of substrate pads;

a semiconductor chip mounted on the substrate, the semiconductor chip having an active surface, a back surface, and a peripheral surface, the active surface including a plurality of chip pads;

a first peripheral sealing portion formed along the peripheral surface of the semiconductor chip;

a plurality of first pattern leads providing electrical connections between a first group of chip pads and a first group of substrate pads, the first pattern leads extending along an inclined surface of the first peripheral sealing portion;

a second peripheral sealing portion formed along the first peripheral sealing portion and the first pattern leads; and

a plurality of second pattern leads providing electrical connections between a second group of chip pads and a second group of substrate pads, the second pattern leads extending along an inclined surface of the second peripheral sealing portion.

10. (ORIGINAL) A semiconductor package according to claim 9, wherein:

a second pattern lead extends across a first pattern lead, electrical connection between the second pattern lead and the first pattern lead being prevented by an interposed portion of the second peripheral sealing portion.

11. (ORIGINAL) A semiconductor package according to claim 9, wherein:

the first group of chip pads is completely separate from the second group of chip pads.

12. (ORIGINAL) A semiconductor package according to claim 9, wherein:

at least one chip pad is included in both the first group of chip pads and the second group of chip pads.

13. (ORIGINAL) A semiconductor package according to claim 9, further comprising:

an encapsulant covering the semiconductor chip, the first peripheral sealing portion, the substrate pads, the first pattern leads, the second peripheral sealing portion and the second pattern leads.

14. (ORIGINAL) A semiconductor package according to claim 9, wherein:

the first peripheral sealing portion covers a first peripheral portion of the active surface; and

the second peripheral sealing portion covers a second peripheral portion of the active surface.

15. (ORIGINAL) A semiconductor package according to claim 9, further comprising:
external connection terminals formed on the substrate, the external connection terminals being electrically connected to the substrate pads.

16. (ORIGINAL) A semiconductor package according to claim 15, wherein:
the external connection terminals are arranged on the bottom surface of the substrate and are selected from a group consisting of solder balls, solder bumps, microsprings and connecting pins.

17. (ORIGINAL) A semiconductor package according to claim 15, wherein:
the external connection terminals are arranged on the top surface of the substrate.

18. (ORIGINAL) A semiconductor package according to claim 9, wherein:
the inclined surface of the first peripheral sealing portion forms an angle of between about 30 and 75 degrees relative to the top surface of the substrate; and
the inclined surface of the second peripheral sealing portion forms an angle of between about 30 and 75 degrees relative to the top surface of the substrate.

19. (ORIGINAL) A semiconductor package according to claim 9, wherein:
the first and second peripheral sealing portions include an insulating composition selected from a group consisting of photo solder resists and plastic resins.

20. (CURRENTLY AMENDED) A method for manufacturing a semiconductor package comprising:

mounting a semiconductor chip on a substrate, the semiconductor chip having a plurality of chip pads on an active surface and the substrate having a plurality of substrate pads on a top surface;

forming a first peripheral sealing portion, the first peripheral sealing portion enclosing a peripheral surface of the semiconductor chip and having an inclined surface;

forming at least one~~first~~ pattern lead~~leads~~ to establish an electrical connection
~~connections between~~ ~~a~~ at least one first chip pad of the plurality of group of the chip pads and a corresponding at least one substrate pad of the plurality of first group of the substrate pads, the at least one first pattern lead~~leads~~ being formed on the inclined surface of the first peripheral sealing portion; and

forming a second peripheral sealing portion along the first peripheral sealing portion
covering the at least one first chip pad and a portion of the at least one pattern lead without
covering at least one second chip pad of the plurality of chip pads.